

PATENT COOPERATION TREATY



INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

(Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

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| Applicant's or agent's file reference PCT204-0034 | FOR FURTHER ACTION | See Form PCT/IPEA/416 |
| International application No. PCT/KR2004/000214 | International filing date(day/month/year) 05 FEBRUARY 2004 (05.02.2004) | Priority date (day/month/year) 05 FEBRUARY 2003 (05.02.2003) |
| International Patent Classification (IPC) or national classification and IPC IPC7 H04Q 7/38 | | |
| Applicant MIRACOM TECHNOLOGY CO., LTD. et al | | |

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| 1. | This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36. |
| 2. | This REPORT consists of a total of <u>3</u> sheets, including this cover sheet. |
| 3. | <p>This report is also accompanied by ANNEXES, comprising:</p> <p>a. <input type="checkbox"/> (sent to the applicant and to the International Bureau) a total of _____ sheets, as follows:</p> <p style="margin-left: 20px;"><input type="checkbox"/> sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions).</p> <p style="margin-left: 20px;"><input type="checkbox"/> sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental Box.</p> <p>b. <input type="checkbox"/> (sent to the International Bureau only) a total of (indicate type and number of electronic carrier(s)) _____ containing a sequence listing and/or tables related thereto, in computer readable form only, as indicated in the Supplemental Box relating to Sequence Listing (see Section 802 of the Administrative Instructions).</p> |
| 4. | <p>This report contains indications relating to the following items:</p> <p><input checked="" type="checkbox"/> Box No. I Basis of the report</p> <p><input type="checkbox"/> Box No. II Priority</p> <p><input type="checkbox"/> Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability</p> <p><input type="checkbox"/> Box No. IV Lack of unity of invention</p> <p><input checked="" type="checkbox"/> Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement</p> <p><input type="checkbox"/> Box No. VI Certain documents cited</p> <p><input type="checkbox"/> Box No. VII Certain defects in the international application</p> <p><input type="checkbox"/> Box No. VIII Certain observations on the international application</p> |

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| Date of submission of the demand 01 SEPTEMBER 2004 (01.09.2004) | Date of completion of this report 17 MAY 2005 (17.05.2005) |
| Name and mailing address of the IPEA/KR  Korean Intellectual Property Office 920 Dunsan-dong, Seo-gu, Daejeon 302-701, Republic of Korea Facsimile No. 82-42-472-7140 | Authorized officer OH, Je Uk Telephone No. 82-42-481-8222  |

Box No. 1 Basis of the report

1. With regard to the **language**, this report is based on the international application in the language in which it was filed, unless otherwise indicated under this item.

- ☒ This report is based on translations from the original language into the following language English which is the language of a translation furnished for the purposes of:
- ☐ international search (under Rules 12.3 and 23.1(b))
- ☒ publication of the international application (under Rule 12.4)
- ☐ international preliminary examination (under Rules 55.2 and/or 55.3)

2. With regard to the **elements** of the international application, this report is based on *(replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report)*:

- ☒ the international application as originally filed/furnished
- ☐ the description:
pages _____ as originally filed/furnished
pages* _____ received by this Authority on _____
pages* _____ received by this Authority on _____
- ☐ the claims:
pages _____ as originally filed/furnished
pages* _____ as amended (together with any statement) under Article 19
pages* _____ received by this Authority on _____
pages* _____ received by this Authority on _____
- ☐ the drawings:
pages _____ as originally filed/furnished
pages* _____ received by this Authority on _____
pages* _____ received by this Authority on _____
- ☐ the sequence listing and/or any related table(s) - see Supplemental Box Relating to Sequence Listing.

3. ☐ The amendments have resulted in the cancellation of:

- ☐ the description, pages _____
- ☐ the claims, Nos. _____
- ☐ the drawings, sheets _____
- ☐ the sequence listing (*specify*): _____
- ☐ any table(s) related to sequence listing (*specify*): _____

4. ☐ This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).

- ☐ the description, pages _____
- ☐ the claims, Nos. _____
- ☐ the drawings, sheets _____
- ☐ the sequence listing (*specify*): _____
- ☐ any table(s) related to sequence listing (*specify*): _____

* If item 4 applies, some or all of those sheets may be marked "superseded."

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.

PCT/KR2004/000214

Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

| | | | |
|-------------------------------|--------|------|-----|
| Novelty (N) | Claims | 1-12 | YES |
| | Claims | NONE | NO |
| Inventive step (IS) | Claims | 1-12 | YES |
| | Claims | NONE | NO |
| Industrial applicability (IA) | Claims | 1-12 | YES |
| | Claims | NONE | NO |

2. Citations and explanations (Rule 70.7)

1. The claimed invention relates to a mobile apparatus for providing several services through a single traffic channel, which comprises: a vocoder for multiplexing /demultiplexing, a plurality of CMS (Concurrent Multiple Service), and a modem. It provides various data services as well as a voice service. The voice is processed by a vocoder part while the various data is being processed by a CMS component.

D1 (KP 2000-0074178) discloses an apparatus and a method for transmitting and receiving data according to a radio link protocol that is used for efficient transmission of data in radio environments.

D2 (KP 2000-0002687) discloses a mobile communication system for transmitting and receiving a voice and low/high speed data, which results in decrease in the source waste of a trunk line.

D3 (EP 1045606(Texas Instruments Inc.)(2000.10.18)) discloses a method for assigning frequencies and time slots in a framed wireless communication system. The same frequency channel is assigned to the same user for second and subsequent calls. For concurrent multiple calls from the same user, each call is assigned a unique time slot within a single frequency channel.

But none of the prior arts D1-D3 includes the mobile apparatus consisting of a vocoder for multiplexing/demultiplexing), a plurality of CMS, and a modem. In addition, they do not teach nor fairly suggest a mobile apparatus and method for providing several services through a single traffic channel. Therefore, the claimed invention meets the criteria set out in PCT Article 33(2)-(3).

2. Claims 1-12 have industrial applicability under PCT Article 33(4), because the subject matter claimed can be made or used in industry.